AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the captioned patent application:

Listing of Claims:

1. (Original) An implantable tissue stimulating device comprising an elongate carrier member having a proximal end, a distal end, and a plurality of electrodes mounted thereon between said proximal and distal ends, the elongate carrier member having at least a first lumen extending at least partially therethrough, the elongate carrier member further including one or more optic fibres positioned along a length of said at least a first lumen.

2. (Original) The implantable tissue stimulating device of claim 1 comprising a cochlear electrode array.

3. (Original) The implantable tissue stimulating device of claim 2 wherein the one or more optic fibres allow a user to illuminate and/or visualise an area of the cochlea during or prior to surgery and wherein further, said one or more optic fibres are removably positioned within said at least a first lumen.

4. (Previously Presented) The implantable tissue stimulating device of claim 1 wherein the elongate carrier member includes a plurality of optic fibres.

5. (Original) The implantable tissue stimulating device of claim 4 wherein at least one of said plurality of optic fibres allows illumination of a surgical site and at least a further optic fibre allows a user to visualise said surgical site.

6. (Previously Presented) The implantable tissue stimulating device of claim 2 wherein the elongate carrier member has a first configuration selected to allow said elongate carrier member to be inserted into the cochlea, and at least a second configuration wherein said elongate carrier member is adapted to apply a preselected tissue stimulation with the electrodes, said elongate carrier member being made of a resiliently flexible first material.

7. (Original) The implantable tissue stimulating device of claim 6 wherein the one or more optic fibres act as a stiffening element that biases said elongate carrier member into said first configuration and wherein removal of the stiffening element causes the elongate carrier member to assume its second configuration.

8. (Original) The implantable tissue stimulating device of claim 6 wherein the elongate carrier member includes a second lumen to receive a stiffening element said stiffening element biasing the elongate carrier member into its first configuration.

9. (Original) The implantable tissue stimulating device of claim 3 wherein upon removal of the one or more optic fibres, the at least a first lumen acts as a drug delivery channel.

10. (Previously Presented) The implantable tissue stimulating device of claim 1 wherein the elongate carrier member has a resiliently flexible tip member extending forwardly from the distal end of the elongate carrier member, said tip member being light permeable and hemispherical in form.

11. (Original) The implantable tissue stimulating device of claim 10 wherein the tip member acts as a lens and allows illumination and/or visualisation of a region at least adjacent the tip member of the elongate carrier member.

12. (Original) The implantable tissue stimulating device wherein the one or more optic fibre is connected to an optical fibre termination means said optical fibre termination means including a light source, eyepiece, and/or a camera lens mounted thereto wherein further, said optical fibre termination means receives light output by the light source and directs this light through the one or more optic fibres.

13. (Original) An implantable tissue-stimulating device comprising:

an elongate carrier member having a plurality of electrodes mounted thereon and having a first configuration selected to allow said elongate carrier member to be inserted into an implantee's body, and at least a second configuration wherein said elongate carrier member is adapted to apply a preselected tissue stimulation with the electrodes, said elongate carrier member being made of a resiliently flexible first material; and

a stiffening element removably positionable within said elongate carrier member that biases said elongate carrier member into said first configuration;

wherein said stiffening element comprises one or more optic fibres.

14. (Original) The implantable tissue-stimulating device of claim 13 wherein the elongate carrier member extends from a proximal end to a distal end and has a resiliently flexible tip member extending forwardly from the distal end of the elongate carrier member, said tip member being light permeable and hemispherical in form.

15. (Original) A cochlear implant electrode assembly device comprising:

an elongate carrier member having a plurality of electrodes mounted thereon and having a first configuration selected to allow said elongate carrier member to be inserted into an implantee's cochlea, and at least a second configuration wherein said elongate carrier member is curved to match a surface of said cochlea, said elongate carrier member being made of a resiliently flexible first material; and

a stiffening element removably positionable within said elongate carrier member that biases said elongate carrier member into said first configuration;

wherein said stiffening element comprises one or more optic fibres.

16. (Original) The cochlear implant electrode assembly device of claim 15 wherein the elongate carrier member extends from a proximal end to a distal end and wherein the elongate carrier member has a resiliently flexible tip member extending forwardly from the distal end of the elongate carrier member, said tip member being light permeable and hemispherical in form.

17. (Original) A cochlear implant electrode assembly device comprising an elongate carrier member having a proximal end, a distal end, and a plurality of electrodes mounted thereon between said proximal and distal ends, the elongate carrier member having a first configuration selected to allow said member to be inserted into an implantee's cochlea, and at least a second configuration wherein said elongate carrier member is curved to match a surface of said cochlea, said elongate carrier member being made of a resiliently flexible first material and having a lumen formed therein extending from or adjacent the proximal end to or adjacent the distal end and adapted to receive a stiffening element removably positionable within said elongate carrier member that biases said elongate carrier member into said first configuration, wherein said distal end of said elongate carrier member comprises a transparent tip member.

18. (Original) The cochlear implant electrode assembly device of claim 17 wherein said assembly device is pre-packaged with the stiffening element positioned within the lumen of the member.

19. (Previously Presented) A method of implanting the implantable tissue stimulating device of claim 1, said method including the steps of:

(i) accessing the implantation site; and

(ii) advancing the elongate carrier member into the cochlea whilst using the one or more optic fibres to illuminate and/or visualise a region of the interior cochlea.

20. (Previously Presented) The method of claim 19 wherein a surgeon manipulates the elongate carrier member to avoid trauma to the tissues of the cochlea.

21. (Previously Presented) The method of claim 19 wherein once implanted, the electrodes of the elongate carrier member receive stimulation signals from a stimulator means said stimulator means electrically connected to the elongate carrier member by way of an electrical lead.

22. (Previously Presented) The method of claim 21 wherein the stimulator means is positioned within a housing that is implanted within the implantee and wherein the housing contains in addition to the stimulator means, a receiver means to receive signals from a controller means, said controller means mounted external to the body of the implantee such that the signals are transmitted transcutaneously through the implantee.

23. (Previously Presented) The method of claim 22 wherein the signals travel from the controller means to the receiver means and vice versa.

24. (Previously Presented) A method of implanting the cochlear electrode assembly device of claim 15, said method including the steps of:

(i) accessing the implantation site; and

(ii) advancing the elongate carrier member into the cochlea.

25. (Previously Presented) The method of claim 24 wherein as the elongate carrier member is advanced into the cochlea, the surgeon is uses the optic fibre stiffening member to visualise a region of the cochlea.

26. (Previously Presented) A stiffening element for an implantable tissue-stimulating device characterised in that the stiffening element comprises one or more optic fibres.

27. (Previously Presented) A probe for use in the internal visual inspection of a cochlea, the probe comprising an elongate carrier member adapted to be at least partially inserted into one of the ducts of the cochlea and having a proximal end, a distal end, and a lumen formed therein, said lumen extending from a location that is at or adjacent the proximal end at least towards the distal end of the elongate carrier member, the probe further including one or more optic fibres removably positioned within at least a portion of the lumen of the elongate carrier member.

28. (Previously Presented) The probe of claim 27 wherein the lumen extends from a first end to a second end and wherein the first end is at or adjacent the proximal end of the elongate carrier member and the second end is at or adjacent the distal end of the elongate carrier member.

29. (Previously Presented) The probe of claim 27 wherein the second end of the lumen is open.

30. (Previously Presented) The probe of claim 27 wherein the second end of the lumen is either partially or wholly closed.

31. (Previously Presented) The probe of claim 30 wherein the lumen is partially or wholly closed by a light permeable member, said light permeable member comprising one or more lenses that allow visualisation of a region at least adjacent the distal end of the elongate carrier member.

32. (Previously Presented) The probe of claim 31 wherein the one or more lenses act(s) as a tip member for the elongate carrier member said tip member extending forwardly from the distal end of the elongate carrier member.

33. (Previously Presented) The probe of claim 27 wherein the elongate carrier member has a first configuration selected to allow said elongate carrier member to be inserted into an implantee's cochlea and a second configuration wherein the elongate carrier member is curved to at least partially match the curvature of a surface of the cochlea.

34. (Previously Presented) The probe of claim 33 wherein the first configuration is substantially straight and when in the second position, the elongate carrier member adopts a spiral configuration.

35. (Previously Presented) A method of inserting the probe of claim 27 in a body of an implantee, comprising the steps of:

(i) accessing the insertion site; and

(ii) introducing the distal end of the elongate carrier member into the cochlea and advancing a substantial length of the elongate carrier member into the cochlea.

36. (Previously Presented) The method of claim 35 wherein during insertion of the elongate carrier member, a surgeon uses the one or more optic fibres to illuminate and visualise the region of the cochlea adjacent the distal end of the elongate carrier member.

37. (Previously Presented) The method of claim 35 wherein the probe includes a stiffening member comprising a stylet and wherein during step (ii), the distal end of the elongate carrier member is advanced to a position near the back of the basal turn of the cochlea and subsequently advanced off the stylet such that the distal end of the elongate carrier member is inserted relatively deeper into the scala tympani.

38. (Cancelled)